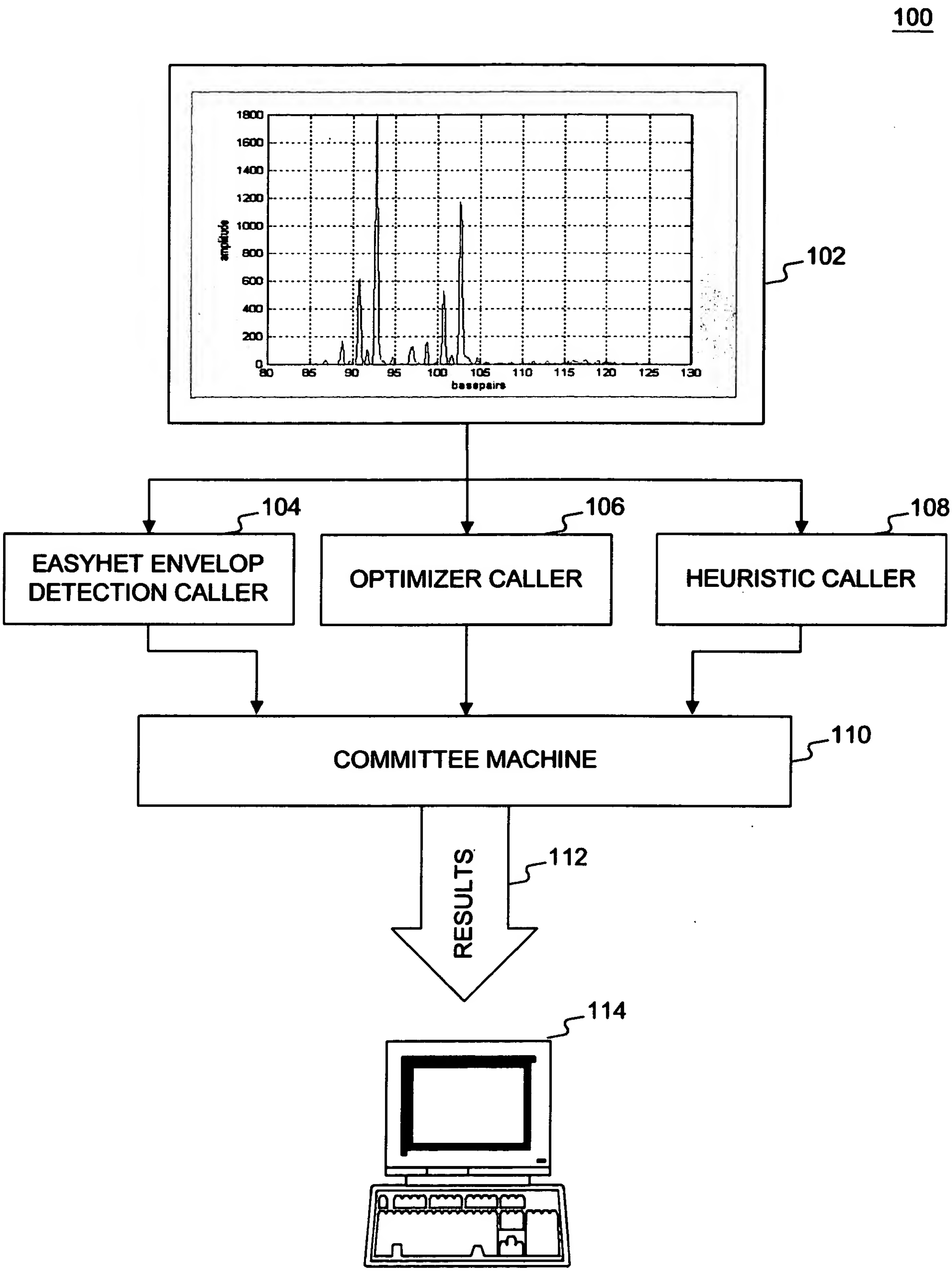
100
1800
1600
1400
1200
1000
800
600
400
200
0
amplitude
80
85
90
95
100
105
110
115
120
125
130
basepairs
102
104
106
108
EASYHET ENVELOP DETECTION CALLER
OPTIMIZER CALLER
HEURISTIC CALLER
COMMITTEE MACHINE
110
RESULTS
112
114

Fig. 1

Allele Calling for di-nucleotide marker in linkage mapping application Sample Data (2)

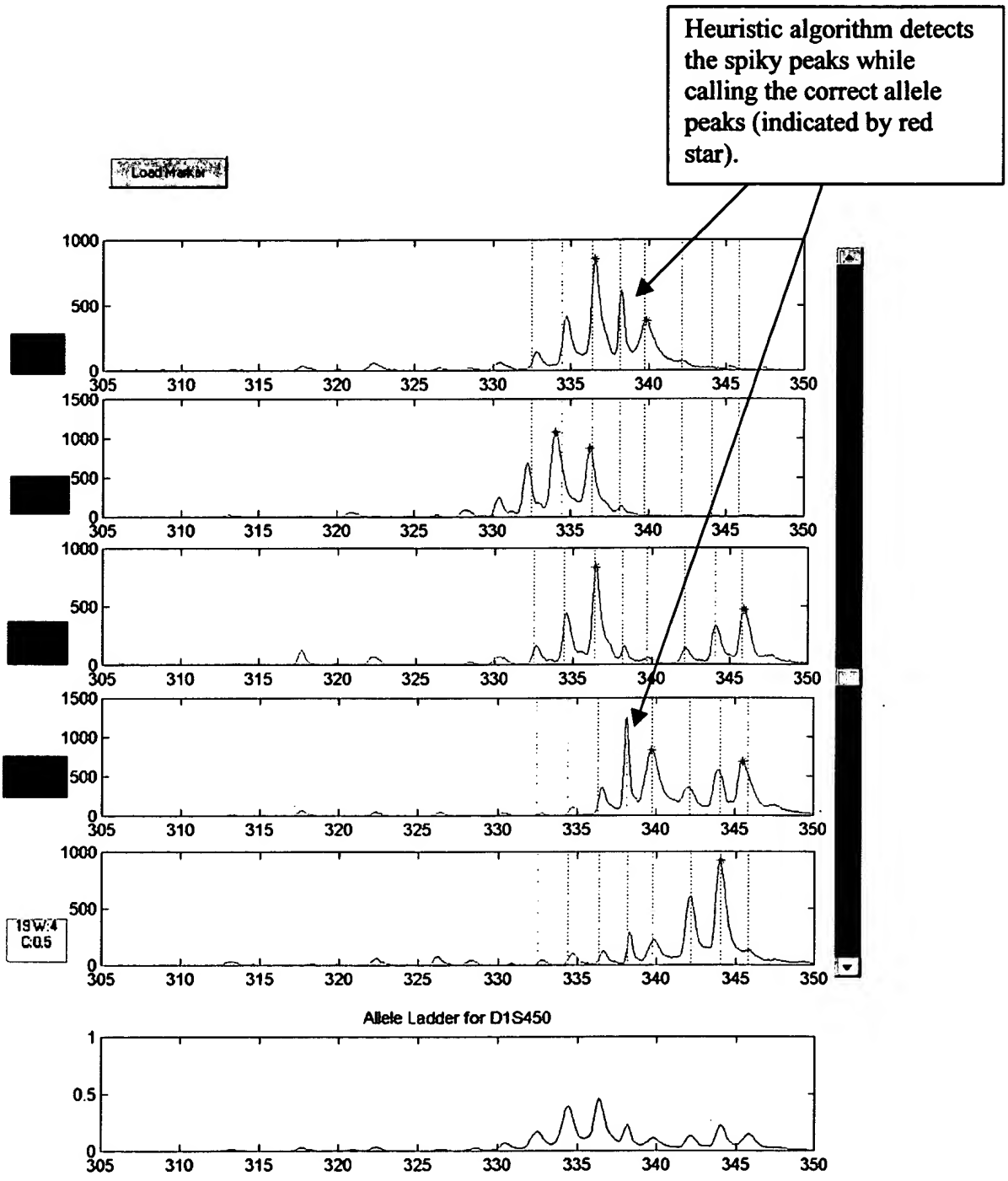

Figure 11

Allele Calling for di-nucleotide marker in linkage mapping application Sample Data (1)

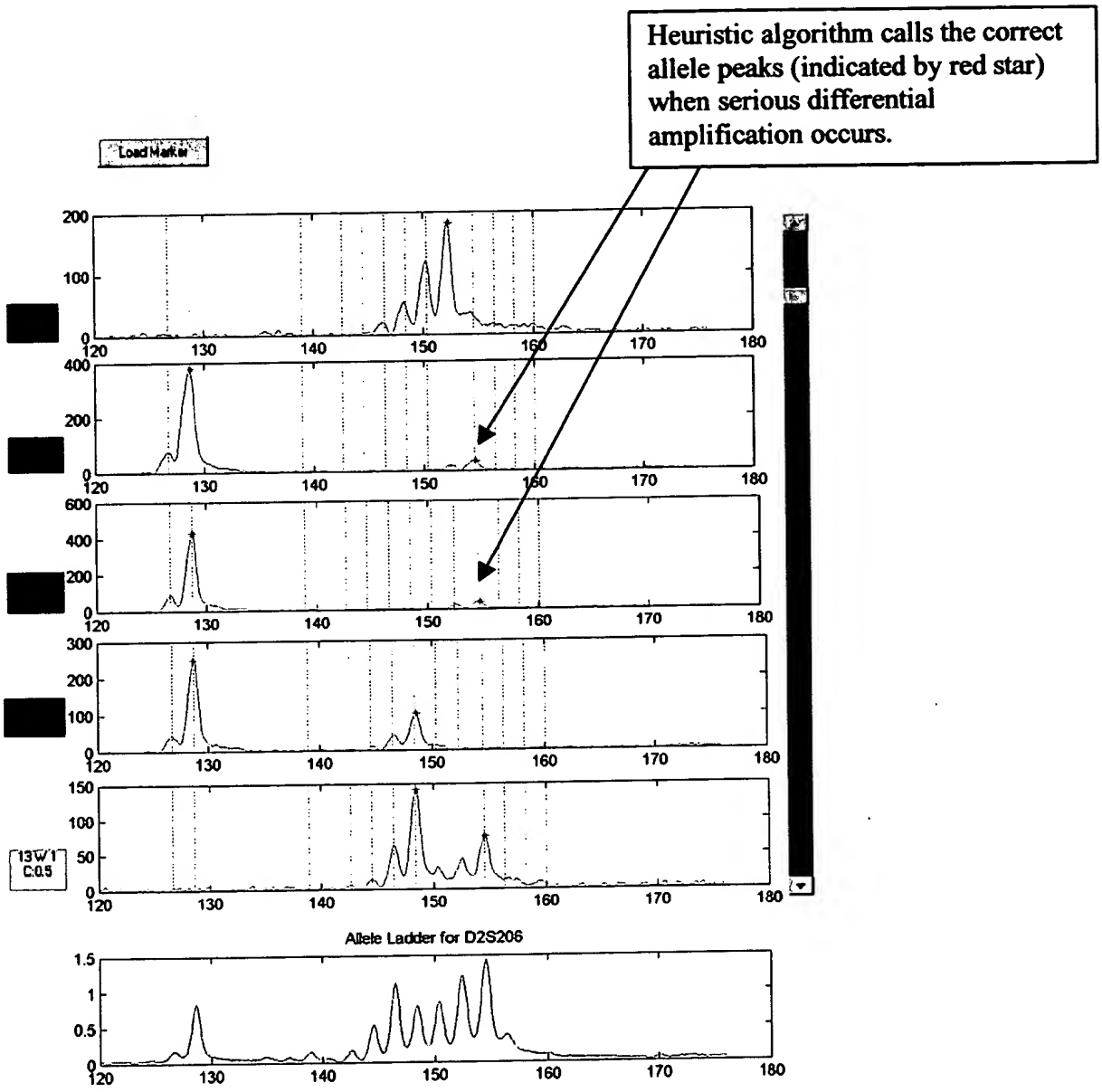

Figure 12

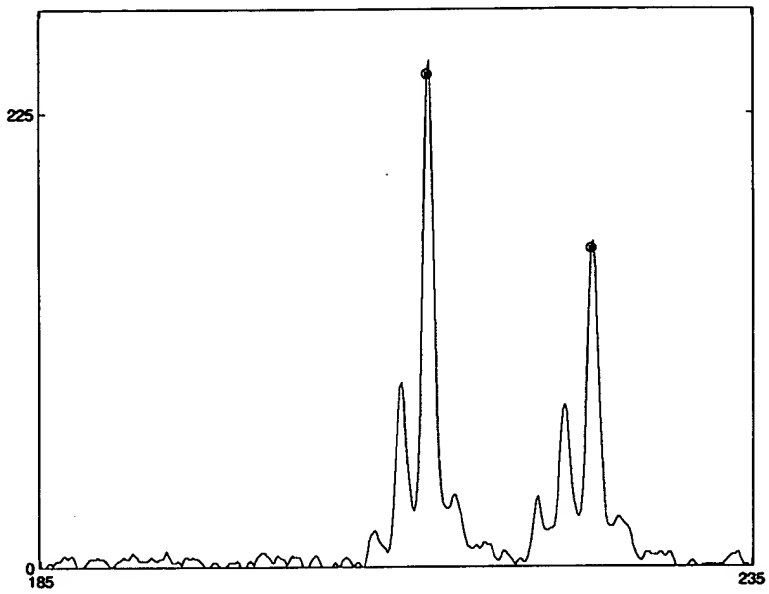

Figure 13: Standard heterozygous allele signature. Circles denote user annotated allele calls. x-axis is in base pairs. y-axis is in A/D counts (voltage intensity)

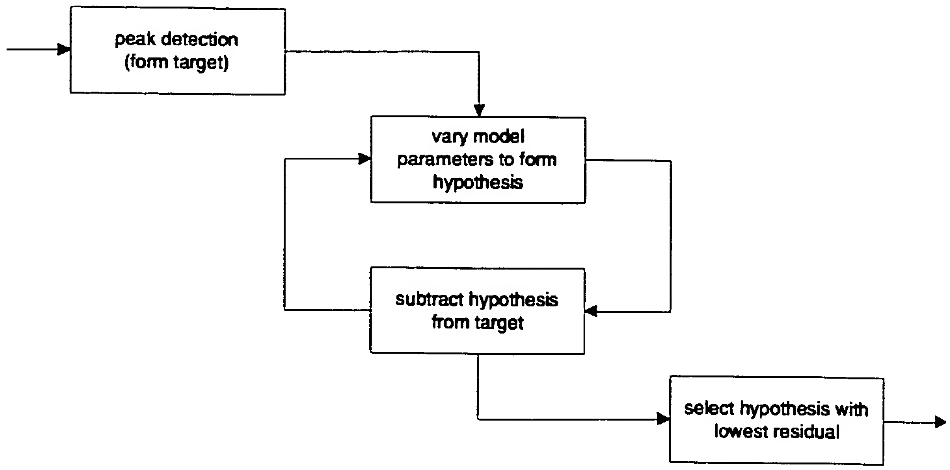

Figure 14: Steps in the allele calling routine. First the signal is simplified via sampling and its peaks are located. This forms the target signal that is to be approximated. The two interconnected boxes indicate the process of varying the parameters and testing how closely the resulting signal matches the sampled version of the original. The set of parameters that yield the closest match contain the allele calls.

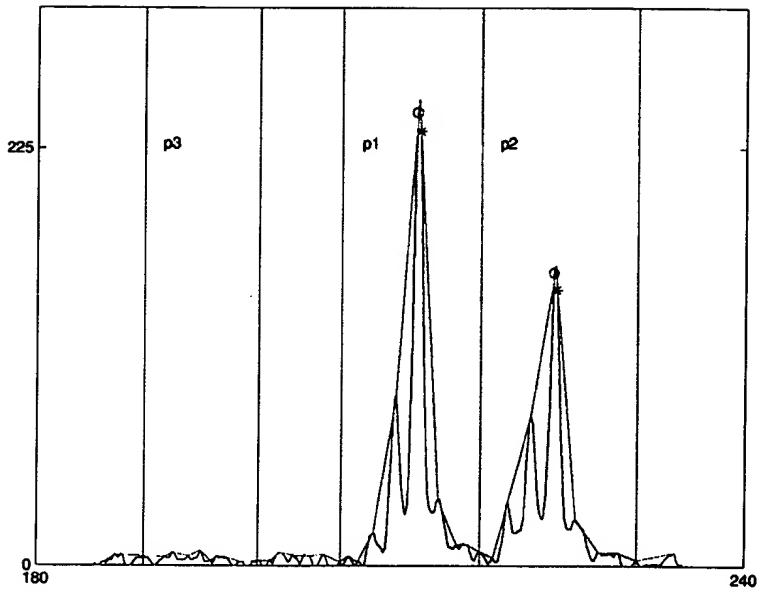

Figure 16: Division of heterozygous signal into panels by the Envelope Caller algorithm. The panels are ranked according to signal energy and the three of interest are labeled p1, p2 and p3 with the two panels containing strong allele signatures being shaded in blue. Circles denote user annotated allele calls. x-axis is in base pairs. y-axis is in A/D counts (voltage intensity)